

CONGRESSIONAL MEDAL FOR OUTSTANDING CONTRIBUTIONS IN MATH AND SCIENCE EDUCATION ACT OF 2004

APRIL 20, 2004.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BOEHLERT, from the Committee on Science,  
submitted the following

R E P O R T

[To accompany H.R. 4030]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 4030) to establish the Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize private entities for their outstanding contributions to elementary and secondary science, technology, engineering, and mathematics education, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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## I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

### SECTION 1. SHORT TITLE.

This Act may be cited as the “Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004”.

### SEC. 2. DEFINITIONS.

In this Act:

(1) DIRECTOR.—The term “Director” means the Director of the National Science Foundation.

(2) ELEMENTARY SCHOOL AND SECONDARY SCHOOL.—The terms “elementary school” and “secondary school” have the meaning given those terms in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

## II. PURPOSE OF THE BILL

The purpose of the bill is to establish a program at the National Science Foundation to recognize outstanding private sector contributions in science, technology, engineering and mathematics education at the elementary and secondary school levels.

## III. BACKGROUND AND NEED FOR THE LEGISLATION

There are clear indications that the U.S. educational system is not equipped to help today’s students meet the demands of postsecondary education or the modern workplace. For example, the most recent National Assessment for Educational Progress found that 31 percent of 4th graders, 34 percent of 8th graders and 35 percent of 12th graders are unable to demonstrate even partial mastery of the knowledge and skills that are fundamental for proficient work in mathematics for their age and grade. In addition, the 1999 Third International Mathematics and Science Study found that U.S. students in their final year of high school rank among the lowest achieving of all participants, ahead of only Cyprus and South Africa.

As a result, many high school graduates are not prepared for college-level work. In what they characterized as a “lost opportunity,” the National Commission on the High School Senior Year found that 70 percent of students enroll in college immediately after high school, but more than a quarter require remedial education in basic subjects like reading, mathematics and writing. In addition, the study found that only 20–25 percent of graduating high school seniors complete enough upper level mathematics classes to be able to continue their education in science, technology, engineering or mathematics. Even among those who intend to major in a science or engineering field, one-third drop out of the program before they complete their bachelor’s degree.

Those with a high school diploma or its equivalency—and those who leave high school short of completing the program—are at an even greater disadvantage in the modern workplace. As recently as two decades ago, a high school diploma was the ticket to the middle class. Those days, and those jobs, are disappearing from the U.S. employment landscape. Today, most entry-level jobs require an un-

derstanding of increasingly complex math and science applications. An automobile worker, according to an industry-wide standard, needs to be able to apply physics formulas to properly wire the electrical circuits of a car. And janitors at a hospital often have to understand bio-hazardous materials waste management. Yet, most employers rate the performance of high school graduates in grammar and spelling, reading, and the ability to apply and use science and math as fair or poor.

The private sector is becoming more involved in education reform. Businesses and other private entities are collaborating with schools to integrate state-of-the-art applications of math and science principles into curricula and to provide insight into the work of scientists and engineers. Businesses have begun to provide such services as teacher training, classroom materials, field trips, guest lecturers, and opportunities to participate in internships or job shadowing programs. For schools, these relationships can result in additional funding and equipment, and they can contribute to overall student achievement. For businesses, they can improve employee morale, build customer loyalty and ultimately provide a talent base for the recruitment of future employees. And for students, private sector involvement can improve attitudes about education and provides math and science experience in a real-world context.

Private sector interest and involvement in these efforts is growing. A 2000 study by the National Association of Partners in Education, Inc. noted that the number and scope of school-business partnerships have increased significantly in the past 12 years, with nearly 70 percent of all school districts engaging in some form of relationship with the private sector.

#### IV. SUMMARY OF HEARING

On March 30, 2004, the Research Subcommittee of the Committee on Science held a hearing to examine the benefits of business involvement in science, technology, engineering and mathematics education. Witnesses provided comments on and recommendations for additions to H.R. 4030, Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004, introduced by Research Subcommittee Chairman Nick Smith and Ranking Member Eddie Bernice Johnson on March 25, 2004. The Subcommittee heard testimony from Dr. Judith Ramaley, Assistant Director for Education and Human Resources at the National Science Foundation; Mr. Jay Engeln, Resident Practitioner for Business-School Partnerships at the National Association of Secondary School Principals; Mr. Torrence Robinson, Director of Public Affairs at Texas Instruments; Ms. Antoinette Bailey, Vice President of Community and Education Relations at The Boeing Company; and Mr. Gus Krudwig, Co-Founder of the Glou Factory, a non-profit youth education center in Jackson, Michigan. Witnesses described their reasons for getting involved in partnerships between schools and the private sector, and they discussed the importance of private sector involvement in efforts to inspire and to develop future scientists, engineers and mathematicians.

## V. COMMITTEE ACTIONS

On March 25, 2004, Research Subcommittee Chairman Nick Smith and Ranking Member Eddie Bernice Johnson introduced H.R. 4030, Congressional Medal for Outstanding Contributions to Math and Science Education Act of 2004, a bill to establish a program at the National Science Foundation to recognize and disseminate information on outstanding private sector contributions to science, technology, engineering, and mathematics education.

The Research Subcommittee of the Committee on Science met on March 30, 2004 to consider the bill. An amendment in the nature of a substitute was offered by Chairman Smith, which made technical changes to the bill and clarified that women and minorities are included among those for whom evidence of improved student achievement would be given priority consideration. The amendment was adopted by voice vote.

Ms. Johnson moved that the Subcommittee report the bill, H.R. 4030, as amended, to the full Committee, and moved to instruct the staff to make technical and conforming amendments and that the Chairman take all necessary steps to bring the bill before the Committee on Science for consideration. With a quorum present, the motion was agreed to by voice vote.

The Committee on Science met on March 31, 2004, to consider the bill, as amended by the Subcommittee. An amendment in the nature of a substitute was offered by Chairman Boehlert, which made technical changes to the bill and added a new section to amend NSF reporting requirements to stagger the release of two statutorily required biennial reports unrelated to the program established by H.R. 4030. The amendment was adopted by voice vote.

Mr. Gordon moved that the Committee favorably report the bill, H.R. 4030, as amended, to the House of Representatives with the recommendation that the bill as amended do pass, and that the staff be instructed to make technical and conforming changes to the bill as amended and prepare the legislative report and that the Chairman take all necessary steps to bring the bill before the House for consideration. With a quorum present, the motion was agreed to by a voice vote.

## VI. SUMMARY OF MAJOR PROVISIONS OF THE BILL

- Requires the Director of the National Science Foundation to establish a Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize outstanding private sector contributions in science, technology, engineering and mathematics in elementary and secondary schools, to encourage additional private sector involvement in these areas, and to disseminate information about Medal recipients.
- Requires the Director to name up to 40 finalists and up to 10 Medal recipients annually and to distribute information on the Medal recipients broadly, including to schools, private entities and the general public.
- Limits eligibility for the Medal to private entities that have worked (alone or in partnership with for-profit or nonprofit entities) to help students, teachers, administrators and other school staff to improve student achievement in science, technology, engineering and mathematics for at least two years.

- Requires the Director to establish a system for accepting applications. Requires applications to include at least two letters of support. Requires the Director to give priority consideration in selecting finalists and Medal recipients to those with evidence of improved student achievement, including improved achievement of women, minorities and persons with disabilities.
- Authorizes such sums as are necessary for carrying out the Act, from within amounts already authorized by the National Science Foundation Act of 2002.

## VII. SECTION-BY-SECTION ANALYSIS (BY TITLE AND SECTION)

### *Sec. 1. Short title*

“Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004.”

### *Sec. 2. Definitions*

Defines terms used in the text.

### *Sec. 3. Establishment of program*

Requires the Director of the National Science Foundation to establish a Congressional Medal for Outstanding Contributions in Math and Science Education program, which shall be designed to:

- (1) Recognize private entities for outstanding efforts supporting elementary and secondary schools in improving student achievement in science, technology, engineering, and mathematics;
- (2) Encourage private entities to support elementary and secondary schools to improve and underscore the importance of science, technology, engineering, and mathematics education; and
- (3) Distribute information about the gold medal recipients available to schools, institutions of higher education, educators, parents, administrators, policymakers, researchers, public and private entities, and the general public.

### *Sec. 4. Medals*

(a) Requires, within two years of enactment, the Director to annually name finalists according to the following criteria:

- (1) Not more than 20 private entities with more than 500 employees; and
- (2) Not more than 20 private entities with 500 or fewer employees.

Specifies that each finalist shall receive a citation describing the basis for the entity achieving status as a finalist.

(b) Requires, within two years of enactment, the Director to annually award medals to employers who are among the finalists in (a) according to the following criteria:

- (1) Not more than 5 private entities with more than 500 employees; and
- (2) Not more than 5 private entities with 500 or fewer employees.

(c) Distribution of information

- (1) Requires the Director to distribute information about the Congressional Medal recipients to schools, institutions of high-

er education, educators, parents, administrators, policymakers, researchers, public and private entities, and the general public; and

(2) Allows any entity that is a finalist or receives a medal to use such information for advertising or other publicity purposes.

#### *Sec. 5. Eligibility*

Makes any private entity that has, either alone or in partnership with for-profit and/or nonprofit entities, assisted students, teachers, administrators, or other support staff in improving student achievement in science, technology, engineering, and mathematics in a school or community eligible to receive a medal. Requires the entity to be involved in a sustained manner for at least two years with at least one elementary or secondary school.

#### *Sec. 6. Application*

Requires the Director to establish a system for accepting applications from entities seeking to be considered for the medal. Requires applications to include at least two letters of support, which may come from teachers, support staff, administrators, professional or business organizations, local, county, or State Departments of Education, and any other categories of persons or organizations as designated by the Director.

#### *Sec. 7. Selection*

Requires the Director to give priority consideration to evidence of improved student achievement in selecting entities to receive medals, including improved student achievement by women, minorities and persons with disabilities. Requires the Director to consider, in addition to any other criteria the Director may establish:

(1) Evidence of innovative approaches to increase interest by students in science, technology, engineering, and mathematics by students, including women, minorities, and persons with disabilities. One such measure may be an increase in the number of students enrolled in advanced courses related to such fields;

(2) Evidence of employee interaction with students or teachers to support and improve mathematics and science learning;

(3) Evidence of success in positively influencing student attitudes and promoting education and career opportunities in science, technology, engineering, and mathematics;

(4) Evidence of successful outreach to students, parents, and the community regarding the importance of mathematics and science education to the Nation's prosperity, job creation, and standard of living, as well as future earning potential for the individual; and

(5) Evidence of a strong and sustained commitment to the students and schools.

#### *Sec. 8. Biennial report*

Changes the deadline for completion of the National Science Foundation report on women and minorities in science and engineering from even-numbered years to odd-numbered years.

*Sec. 9. Authorization of appropriations*

For each of fiscal years 2005 through 2007, authorizes such sums as are necessary for carrying out this Act, to be derived from amounts authorized by the National Science Foundation Authorization Act of 2002.

VIII. COMMITTEE VIEWS

The purpose of the Act is to encourage more private sector involvement with public schools. The Act seeks to accomplish this through at least three means—by having the Federal government recognize the value of private sector contributions; by having the Federal government disseminate widely information on successful collaborations; and by allowing winners of the new Medal mention the award in advertisements and other promotional materials.

With that in mind, the Committee expects the Director to ensure, to the extent practicable, that awards recognize collaborations in a wide range of school districts—large and small, rich and poor, rural suburban and urban—and in a wide range of geographic areas.

The Committee also expects the Director to commission a design for the award that will reflect the prestige of these awards. The Committee notes that the word “Medal” is not meant to limit the design of the Award, whether it be a medal, plaque, trophy or other object.

The Act allows awards to be given to private sector entities whose collaboration is part of a Federal program, such as the Math and Science Partnerships. However, the Committee expects all applicants to demonstrate evidence of their own contributions and commitment to the partnership effort.

The Act requires the Director to establish a system for accepting applications, and it requires applicants to include letters of support from two of several categories of persons and organizations. The Committee expects these letters to come from those with personal knowledge of or experience with the private sector entity and the school. The Act also provides general selection criteria, such as evidence of positively influencing attitudes and promoting career opportunities in science, technology, engineering and mathematics. While additional criteria may be developed to aid in the selection of finalists and Medal recipients, the Act requires priority consideration for those applicants that demonstrate evidence of improved student achievement. The legislation specifies that improved achievement by traditionally underrepresented students, such as women, minorities, and persons with disabilities, is also to be considered in providing this priority.

The Committee expects the Director to establish the necessary processes and mechanisms to ensure the success of the program, which may include workshops to develop the program design, conferences to encourage collaboration between the private sector and schools, and a national recognition ceremony for Medal recipients.

IX. COST ESTIMATE

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on

Science prior to the filing of this report and is included in Section X of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 4030 does not contain new budget authority, credit authority, or changes in revenues or tax expenditures. Assuming that the sums authorized under the bill are appropriated, H.R. 4030 does not authorize additional discretionary spending, as described in the Congressional Budget Office report on the bill, which is contained in Section X of this report.

#### X. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, April 8, 2004.*

Hon. SHERWOOD L. BOEHLERT,  
*Chairman, Committee on Science,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 4030, the Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Kathleen Gramp.

Sincerely,

DOUGLAS HOLTZ-EAKIN,  
*Director.*

Enclosure.

#### *H.R. 4030—Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*

H.R. 4030 would establish a Congressional medal to be awarded to private entities that have made significant contributions to improving the achievements of elementary or secondary students in science, technology, engineering, and mathematics. Under the bill, a total of 10 medals would be awarded annually by the National Science Foundation (NSF). Funding for the program would be derived from amounts authorized for NSF activities in the National Science Foundation Authorization Act of 2002 (Public Law 107–368). That act authorized appropriations of \$7.4 billion for fiscal year 2005, \$8.5 billion for 2006, and \$9.8 billion for 2007.

CBO estimates that enacting H.R. 4030 would have no significant budgetary impact and would not affect direct spending or revenues. Under this bill, the amounts authorized to be appropriated for NSF would remain at the levels specified in Public Law 107–368, but the scope of the authorized activities would be expanded to include the cost of administering this new program. According to NSF, those costs would be about \$500,000 a year.

H.R. 4030 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would not affect the budgets of state, local, and tribal governments.

The CBO staff contact for this estimate is Kathleen Gramp. This estimate was approved by Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.



#### XI. COMPLIANCE WITH PUBLIC LAW 104–4 (UNFUNDED MANDATES)

H.R. 4030 contains no unfunded mandates.

#### XII. COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

The Committee on Science’s oversight findings and recommendations are reflected in the body of this report.

#### XIII. STATEMENT ON GENERAL PERFORMANCE GOALS AND OBJECTIVES

Pursuant to clause (3)(c) of House rule XIII, the goals of H.R. 4030 are to, through the establishment of a Congressional medal of recognition program, encourage businesses and other private sector entities to work with elementary and secondary schools to improve science, technology, engineering and mathematics education, recognize outstanding private sector-school relationships, and disseminate information on model private sector-school relationships so that successful strategies and techniques can be adopted more widely.

#### XIV. CONSTITUTIONAL AUTHORITY STATEMENT

Article I, Section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 4030.

#### XV. FEDERAL ADVISORY COMMITTEE STATEMENT

H.R. 4030 does not establish or authorize the establishment of any advisory committee.

#### XVI. CONGRESSIONAL ACCOUNTABILITY ACT

The Committee finds that H.R. 4030 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

#### XVII. STATEMENT ON PREEMPTION OF STATE, LOCAL, OR TRIBAL LAW

This bill is not intended to preempt any state, local, or tribal law.

#### XVIII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

### **SECTION 37 OF THE SCIENCE AND ENGINEERING EQUAL OPPORTUNITIES ACT**

#### BIENNIAL REPORT

SEC. 37. (a) **[By January 30, 1982, and biennially thereafter]** *By January 30 of each odd-numbered year*, the Director shall simultaneously transmit a report to the Congress, the Attorney General, the Director of the Office of Science and Technology Policy, the

Chairman of the Equal Employment Opportunity Commission, the Director of the Office of Personnel Management, the Secretary of Labor, the Secretary of Education, and the Secretary of Health and Human Services.

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#### XIX. COMMITTEE RECOMMENDATIONS

On March 31, 2004, a quorum being present, the Committee on Science reported H.R. 4030, Congressional Medal for Outstanding Contributions to Math and Science Education Act of 2004, as amended by a voice vote, and recommended its enactment.

**XX. PROCEEDINGS OF THE MARKUP BY THE  
SUBCOMMITTEE ON RESEARCH ON H.R.  
4030, CONGRESSIONAL MEDAL FOR OUT-  
STANDING CONTRIBUTIONS IN MATH AND  
SCIENCE EDUCATION ACT OF 2004**

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**TUESDAY, MARCH 30, 2004**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON RESEARCH,  
COMMITTEE ON SCIENCE,  
*Washington, DC.*

The Subcommittee met, pursuant to call, at 10:09 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Nick Smith [Chairman of the Subcommittee] presiding.

Chairman SMITH. Good morning. I would like to thank our witnesses. The procedure this morning is that we will move towards consideration of H.R. 4030 and then we will ask our witnesses to give us their thoughts and ideas on the cooperation of business and industry to help and support science and math education in our K through 12 schools.

I ask unanimous consent for the authority to recess the Subcommittee at any point, and without objection, it is so ordered.

We will now consider H.R. 4030 and proceed with the opening remarks.

*[See Appendix for H.R. 4030 and Section-by-Section Analysis.]*

Chairman SMITH. I would like to welcome everybody here today for this Research Subcommittee markup of the *Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*, which Congresswoman Johnson and I introduced recently. The Congressional Medal is intended to encourage companies to work with the K through 12 schools to improve science and math education, but to also encourage by recognizing those companies that do an exceptional job.

Business, industry, and other private groups have so much to offer and so much to gain by helping to excite an interest in students and keep that interest and ability burning as they enter college or begin their careers. Many companies are already doing a lot. In addition to recognizing their efforts, H.R. 4030 requires the National Science Foundation to make information about the award winners and what they are doing, and that, then, becomes available to schools around the country. This bill also creates separate categories of awards for private entities with more than 500 employees and also those with less than 500.

Everyone from large corporations and associations to small manufacturers and community organizations has a role to play in improving math and science education, and should be able to receive the encouragement and recognition under this legislation. H.R. 4030 establishes criteria that the National Science Foundation shall consider in determining Medal finalists and winners, including priority consideration for evidence of improved student achievement in science and technology and engineering or mathematics by the students. The legislation also allows for the consideration of additional criteria established by the Director of NSF.

[The prepared statement of Chairman Smith follows:]

PREPARED STATEMENT OF CHAIRMAN NICK SMITH

I'd like to welcome all of you here today for this Research Subcommittee markup of H.R. 4030, the *Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*, which Ranking Member Johnson and I introduced last week. The Congressional Medal is intended to encourage companies to work with K-12 schools to improve math and science education and recognize the companies that do an exceptional job already.

Business, industry and other private groups have so much to offer and so much to gain by helping to excite an interest in students and keep that interest and ability burning as they enter college or begin their careers. Many companies are already doing a lot. In addition to recognizing their efforts, H.R. 4030 requires the National Science Foundation to make information about award winners publicly available so that examples of techniques and strategies can be utilized around the country.

This bill also creates separate categories of awards for private entities with more than 500 employees and those with 500 or less employees. Everyone from large corporations and associations to small manufacturers and community organizations has a role to play in improving math and science education and should be able to receive recognition for their efforts.

H.R. 4030 establishes criteria that NSF shall consider in determining medal finalists and winners, including priority consideration for evidence of improved student achievement in science, technology, engineering, or mathematics by students. The legislation also allows for the consideration of additional criteria established by the Director of NSF.

The manager's amendment makes several technical corrections, and includes language suggested by Ranking Member Johnson that I have accepted ensuring that, in determining medal finalists and winners, NSF give consideration to efforts that assist female and minority students. I thank Ms. Johnson for her help with this amendment and encourage all Members to vote for the amendment and final passage.

Chairman SMITH. I would now recognize Ms. Johnson for five minutes to present her opening remarks.

Ms. JOHNSON. Thank you very much, Mr. Chairman.

As the co-sponsor of this legislation, I speak in support of this favorable consideration by the Research Subcommittee today. The Subcommittee has a long history of support for efforts to improve K through 12 math and science education. The bill before the Subcommittee will help to mobilize greater efforts by the private sector and helping our schools to achieve the goal of higher achievement in math and science for all students.

And I would like to commend you, Chairman Smith, for originating the concept for the bill and in working with me in a collegial way in developing the final product. In particular, I appreciate your willingness to include language I propose in the Manager's Amendment, which we will offer at the appropriate time. My language simply emphasizes the importance of recognizing private sector activities that increase the participation and improve the achievement of women and minorities in math and science.

This provision is consistent with this committee's long interest in attracting the interest of and preparing all segments of the population in math and science. This is necessary if the Nation is to satisfy its demands for science and technology workforce of the future, because the proportion of minorities in the college-aged population is growing. And it helps to ensure that all citizens will achieve a level of technological literacy needed to function in the 21st century.

Mr. Chairman, I want to thank you for bringing H.R. 4030 before the Subcommittee for its consideration today, and I am pleased to recommend the bill to my colleagues and seek their approval for a favorable report of the legislation to the Full Committee.

Thank you very much.

Chairman SMITH. Thank you very much.

And without objection, all Members may place opening statements in the record at this point in time, but Mr. Gutknecht, Mr. Gingrey, Mr. Neugebauer, if you would like to make a brief comment, you are certainly welcome to at this time.

[The prepared statement of Mr. Honda follows:]

PREPARED STATEMENT OF REPRESENTATIVE MICHAEL M. HONDA

I thank Chairman Smith and Ranking Member Johnson for introducing this legislation and holding this hearing and markup today.

In Silicon Valley, we have been fortunate to have companies involved in K-12 education in a variety of ways for many years. Contributions vary widely, ranging from the employees of individual companies such as Xilinx who donate stock options to schools to consortia of many companies and groups.

Industry Initiatives for Science and Math Education (IISME) was founded by a consortium of Bay Area industries in partnership with the University of California at Berkeley. IISME seeks to transform teaching and learning through industry-education partnerships by focusing on teachers as the primary agents for effecting change and offering a number of professional development opportunities for professional development for K-12 teachers.

Workforce Silicon Valley has brought together leading Silicon Valley employers, represented by the Silicon Valley Manufacturing Group (SVMG), with local K-12 districts, colleges and training organizations, employers, parents, and community members, to narrow the gap between the skills of Silicon Valley youth and the needs of high-performance organizations.

The Resource Area for Teachers provides thousands of Bay Area teachers and community groups with a wide range of interactive learning materials, enhancing math, science, and technology programs. Materials are surplus items donated by over 1,000 local businesses.

These examples represent only a small piece of the wide range of ways that private sector entities can help to improve our K-12 science education programs. All of these private entities have reasons to engage in this activity, primarily philanthropy but often because they recognize that it provides a benefit to them, in a more well-prepared future workforce. I don't know that the recognition of a medal is going to encourage more participation in such programs.

Current efforts are certainly worthy of commendation, but I wonder whether it might be a better use of federal resources to work on improving the K-12 system so that such programs would not be necessary. However, if the medals program will successfully distribute information about the efforts going on nationwide and help generate more efforts like this, it may be worth the effort. At this hearing and markup, I hope the witnesses will enlighten us on whether these medals will actually encourage more of this kind of effort.

Chairman SMITH. Mr. Gutknecht.

Mr. GUTKNECHT. Mr. Chairman, let me just thank you for putting this bill together. And I think it is one that we should move forward with. And hopefully all of our colleagues, on both sides of

the aisle, can agree that this is the kind of thing that we need to encourage more of.

Mr. GUTKNECHT. I yield back.

Chairman SMITH. Thank you.

Mr. Neugebauer.

Mr. NEUGEBAUER. Yeah. Mr. Chairman, I also want to commend you for introducing this bill. And I think it is important, and I am a strong advocate of increasing and encouraging private sector participation in education, and so I think this bill is one of those tools that we can use to do that. And I thank you for bringing this to the Committee this morning.

Chairman SMITH. Thank you.

Mr. Gingrey.

Mr. GINGREY. Mr. Chairman, thank you. And I would like to join my colleagues in commending you and Ms. Johnson for bringing this bill. It is so important that we recognize the strategic importance of math and science in both elementary, primary, and secondary education. It is—you know, we are concerned about jobs and the global economy in the 21st century, and I don't think anything can help our job situation better than preparing our youngsters with a strong, solid background in math and science, so I commend you for this legislation.

Chairman SMITH. I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in order of the roster. And without objection, it is so ordered.

*[See Appendix for the Amendment Roster.]*

Chairman SMITH. The first amendment on the roster is an amendment in the nature of a substitute offered by the Chair. And so there is—that amendment is at the desk. And the Clerk, excuse me, shall report the amendment.

The CLERK. Amendment in the nature of a substitute to H.R. 4030, offered by Mr. Smith of Michigan.

*[See Appendix for the Amendment in the Nature of a Substitute offered by Mr. Smith of Michigan.]*

Chairman SMITH. Again, if there is no objection, I would move and ask for unanimous consent that the amendment be considered read. And without objection, it is so ordered.

I recognize myself for five minutes or less.

And the Manager's Amendment makes several technical corrections and includes language suggested by Ranking Member Johnson, that I think is good language and is part of this substitute, in determining that Medal finalists and winners, NSF give consideration to efforts that assist female and minority students.

And I thank Ms. Johnson for her help with this amendment and encourage all Members to vote for this substitute and final passage.

And with that, would the Ranking Member have any comments on the substitute?

*[No response.]*

Chairman SMITH. The motion is for its adoption. Without—if there is no further—

Mr. NEUGEBAUER. Mr. Chairman?

Chairman SMITH. Yes.

Mr. NEUGEBAUER. Where is that language that Ms. Johnson offered? What—put in the substitute. I was looking through here, and I am sure I am looking right over it, but I don't—

Chairman SMITH. Page—what page is it, Dan? Let me know, Dan, and everybody can know. I am sorry, I can't hear you. Page 4. The bottom of page 4.

Mr. NEUGEBAUER. Mr. Chairman, I—it is not necessary. I—at some point in time, I would like to see that language, but I would assume that it is—make sure that it is very inclusive, and that was—

Chairman SMITH. Dan, can you have somebody on staff go pursue it now? And we could have it by the end of the—they can look that up. The question is on the adoption of the substitute. All in favor, say aye. Those opposed, no. The ayes have it, and the amendment in the nature of a substitute is agreed to.

The question is now on the bill, H.R. 4030, *Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*, as amended. Are—is there further discussion, or are we ready to vote? All of those in favor will say aye. Those opposed, say no. In the opinion of the Chair, the ayes have it, and the motion in the nature of a substitute is adopted.

I now recognize Ms. Johnson to offer a motion.

Ms. JOHNSON. Mr. Chairman, I move that the Subcommittee favorably report the bill, H.R. 4030, as amended, to the Full Committee. And further, I ask unanimous consent that the staff be instructed to make all necessary technical and conforming changes to the bill, as amended, in accordance with the recommendations of the Subcommittee.

Chairman SMITH. The question is now on the motion to report the bill, as amended, favorably. And those in favor of the motion will signify by saying aye. Those opposed, no. The ayes appear to have it, and the resolution is favorably reported.

Without objection, the motion to reconsider is laid upon the table. And this concludes our Subcommittee markup, and the Chair declares the Subcommittee adjourned.

[Whereupon, at 10:18 a.m., the Subcommittee proceeded to other business.]





## Appendix:

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AMENDMENT ROSTER, H.R. 4030, SECTION-BY-SECTION ANALYSIS

## COMMITTEE ON SCIENCE

**SUBCOMMITTEE ON RESEARCH**

**March 30, 2004**

## AMENDMENT ROSTER

**H.R. 4030, Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004**

[illegible]

**AMENDMENT IN THE NATURE OF A SUBSTITUTE  
TO H.R. 4030  
OFFERED BY MR. SMITH OF MICHIGAN**

Strike all after the enacting clause and insert the following:

**1 SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Congressional Medal  
3 for Outstanding Contributions in Math and Science Edu-  
4 cation Act of 2004”.

**5 SEC. 2. DEFINITIONS.**

6 In this Act:

7 (1) DIRECTOR.—The term “Director” means  
8 the Director of the National Science Foundation.

9 (2) ELEMENTARY SCHOOL AND SECONDARY  
10 SCHOOL.—The terms “elementary school” and “sec-  
11 ondary school” have the meaning given those terms  
12 in section 9101 of the Elementary and Secondary  
13 Education Act of 1965 (20 U.S.C. 7801).

**14 SEC. 3. ESTABLISHMENT OF PROGRAM.**

15 The Director shall establish a Congressional Medal  
16 for Outstanding Contributions in Math and Science Edu-  
17 cation program, which shall be designed to—

1           (1) recognize private entities for outstanding ef-  
2       forts supporting elementary and secondary schools  
3       in improving student achievement in science, tech-  
4       nology, engineering, and mathematics;

5           (2) encourage private entities to support ele-  
6       mentary and secondary schools to improve and un-  
7       derscore the importance of science, technology, engi-  
8       neering, and mathematics education; and

9           (3) make information about medal recipients  
10      available to schools, institutions of higher education,  
11      educators, parents, administrators, policymakers, re-  
12      searchers, public and private entities, and the gen-  
13      eral public.

14   **SEC. 4. MEDALS.**

15       (a) **FINALISTS.**—Beginning not later than 2 years  
16      after the date of enactment of this Act, the Director shall  
17      annually name as finalists for medals under this Act—

18           (1) not more than 20 private entities with more  
19      than 500 employees; and

20           (2) not more than 20 private entities with 500  
21      or fewer employees.

22      Each finalist shall receive a citation describing the basis  
23      for the entity achieving status as a finalist.

24       (b) **MEDAL WINNERS.**—Beginning not later than 2  
25      years after the date of enactment of this Act, from among

1 finalists named under subsection (a), the Director shall  
2 annually award medals under this Act to—

3 (1) not more than 5 private entities with more  
4 than 500 employees; and

5 (2) not more than 5 private entities with 500  
6 or fewer employees.

7 (c) DISTRIBUTION OF INFORMATION.—(1) The Di-  
8 rector shall distribute information about the Congressional  
9 Medal for Outstanding Contributions in Math and Science  
10 Education recipients in a timely and efficient manner (in-  
11 cluding through the use of a searchable online database)  
12 to schools, institutions of higher education, educators, par-  
13 ents, administrators, policymakers, researchers, public  
14 and private entities, and the general public.

15 (2) Any entity that is a finalist or receives a medal  
16 under this section may use such information for adver-  
17 tising and other publicity purposes.

18 **SEC. 5. ELIGIBILITY.**

19 Eligibility to receive medals under section 4 of this  
20 Act shall be limited to private entities that—

21 (1) have, whether working alone or in partner-  
22 ship with for-profit or nonprofit entities, assisted  
23 students, teachers, administrators, or other support  
24 staff to improve student achievement in science,

1 technology, engineering, and mathematics in a  
2 school or community; and

3 (2) have been involved in such activities in a  
4 sustained manner for at least 2 years with at least  
5 one elementary or secondary school.

6 **SEC. 6. APPLICATION.**

7 The Director shall establish a system for accepting  
8 applications from entities seeking to be considered for a  
9 medal under this Act. Applications shall include at least  
10 two letters of support, which may come from teachers,  
11 professional support staff, administrators, professional or  
12 business organizations, local, county, or State Depart-  
13 ments of Education, or any other category of persons as  
14 designated by the Director. Letters of support shall de-  
15 scribe the reasons the entity deserves the medal.

16 **SEC. 7. SELECTION.**

17 In selecting entities to receive medals under this Act,  
18 the Director shall give priority consideration to evidence  
19 of improved achievement in science, technology, engineer-  
20 ing, or mathematics by students, including improved  
21 achievement by individuals identified in section 33 or 34  
22 of the Science and Engineering Equal Opportunities Act  
23 (42 U.S.C. 1885a or 1885b). In addition to any other cri-  
24 teria the Director may establish, the Director shall also  
25 consider the following:

1           (1) Evidence of innovative approaches to in-  
2       crease interest in science, technology, engineering,  
3       and mathematics by students, including individuals  
4       identified in section 33 or 34 of the Science and En-  
5       gineering Equal Opportunities Act (42 U.S.C. 1885a  
6       or 1885b). One measure of such evidence may be an  
7       increase in the number of students enrolled in ad-  
8       vanced courses related to such fields.

9           (2) Evidence of employee interaction with stu-  
10      dents or teachers to support and improve mathe-  
11      matics and science learning.

12          (3) Evidence of success in positively influencing  
13      student attitudes and promoting education and ca-  
14      reer opportunities in science, technology, engineer-  
15      ing, and mathematics.

16          (4) Evidence of successful outreach to students,  
17      parents, and the community regarding the impor-  
18      tance of mathematics and science education to the  
19      Nation's prosperity, job creation, and standard of  
20      living, as well as future earning potential for the in-  
21      dividual.

22          (5) Evidence of a strong and sustained commit-  
23      ment to the students and schools.

**1 SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

2 For each of fiscal years 2005 through 2007, there  
3 are authorized to be appropriated to the National Science  
4 Foundation such sums as may be necessary for carrying  
5 out this Act, to be derived from amounts authorized by  
6 the National Science Foundation Authorization Act of  
7 2002.



108TH CONGRESS  
2D SESSION

# H. R. 4030

To establish the Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize private entities for their outstanding contributions to elementary and secondary science, technology, engineering, and mathematics education.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 25, 2004

Mr. SMITH of Michigan (for himself and Ms. EDDIE BERNICE JOHNSON of Texas) introduced the following bill, which was referred to the Committee on Science

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## A BILL

To establish the Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize private entities for their outstanding contributions to elementary and secondary science, technology, engineering, and mathematics education.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*  
3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Congressional Medal  
5 for Outstanding Contributions in Math and Science Edu-  
6 cation Act of 2004”.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **DIRECTOR.**—The term “Director” means  
4 the Director of the National Science Foundation.

5 (2) **ELEMENTARY SCHOOL AND SECONDARY**  
6 **SCHOOL.**—The terms “elementary school” and “sec-  
7 ondary school” have the meaning given those terms  
8 in section 9101 of the Elementary and Secondary  
9 Education Act of 1965 (20 U.S.C. 7801).

10 **SEC. 3. ESTABLISHMENT OF PROGRAM.**

11 The Director shall establish a Congressional Medal  
12 for Outstanding Contributions in Math and Science Edu-  
13 cation program, which shall be designed to—

14 (1) recognize private entities for outstanding ef-  
15 forts supporting elementary and secondary schools  
16 in improving student achievement in science, tech-  
17 nology, engineering, and mathematics;

18 (2) encourage private entities to support ele-  
19 mentary and secondary schools to improve and un-  
20 derSCORE the importance of science, technology, engi-  
21 neering, and mathematics education; and

22 (3) make information about medal recipients  
23 available to schools, institutions of higher education,  
24 educators, parents, administrators, policymakers, re-  
25 searchers, public and private entities, and the gen-  
26 eral public.

1 **SEC. 4. MEDALS.**

2 (a) FINALISTS.—Beginning not later than 2 years  
3 after the date of enactment of this Act, the Director shall  
4 annually name as finalists for medals under this Act—

5 (1) not more than 20 private entities with more  
6 than 500 employees; and

7 (2) not more than 20 private entities with 500  
8 or fewer employees.

9 Each finalist shall receive a citation describing the basis  
10 for the entity achieving status as a finalist.

11 (b) MEDAL WINNERS.—Beginning not later than 2  
12 years after the date of enactment of this Act, from among  
13 finalists named under subsection (a), the Director shall  
14 annually award medals under this Act to—

15 (1) not more than 5 private entities with more  
16 than 500 employees; and

17 (2) not more than 5 private entities with 500  
18 or fewer employees.

19 (c) DISTRIBUTION OF INFORMATION.—(1) The Di-  
20 rector shall distribute information about the Congressional  
21 Medal for Outstanding Contributions in Math and Science  
22 Education recipients under this Act in a timely and effi-  
23 cient manner (including through the use of a searchable  
24 online database) to schools, institutions of higher edu-  
25 cation, educators, parents, administrators, policymakers,

1 researchers, public and private entities, and the general  
2 public.

3 (2) An entity that is a finalist or receives a medal  
4 under this section may use such information for adver-  
5 tising and other publicity purposes.

6 **SEC. 5. ELIGIBILITY.**

7 Any private entity that has, whether working alone  
8 or in partnership with for-profit or nonprofit entities, as-  
9 sisted students, teachers, administrators, or other support  
10 staff to improve student achievement in science, tech-  
11 nology, engineering, and mathematics in a school or com-  
12 munity shall be eligible to receive a medal under section  
13 4. The entity must have been involved in such activities  
14 in a sustained manner for at least 2 years with at least  
15 one elementary or secondary school.

16 **SEC. 6. APPLICATION.**

17 The Director shall establish a system for accepting  
18 applications from entities seeking to be considered for a  
19 medal under this Act. Applications shall include at least  
20 two letters of support, which may come from teachers,  
21 professional support staff, administrators, professional or  
22 business organizations, local, county, or State Depart-  
23 ments of Education, or any other category of persons as  
24 designated by the Director. Letters of support shall de-  
25 scribe the reasons the entity deserves the medal.

1 **SEC. 7. SELECTION.**

2 In selecting entities to receive medals under this Act,  
3 the Director shall give priority consideration to evidence  
4 of improved student achievement in science, technology,  
5 engineering, or mathematics. In addition to any other cri-  
6 teria the Director may establish, the Director shall also  
7 consider the following:

8 (1) Evidence of innovative approaches to in-  
9 crease interest by students in science, technology,  
10 engineering, and mathematics, such as an increase  
11 in the number of students enrolled in advanced  
12 courses related to such fields.

13 (2) Evidence of employee interaction with stu-  
14 dents or teachers to support and improve mathe-  
15 matics and science learning.

16 (3) Evidence of success in positively influencing  
17 student attitudes and promoting education and ca-  
18 reer opportunities in science, technology, engineer-  
19 ing, and mathematics.

20 (4) Evidence of successful outreach to students,  
21 parents, and the community regarding the impor-  
22 tance of mathematics and science education to the  
23 Nation's prosperity, job creation, and standard of  
24 living, as well as future earning potential for the in-  
25 dividual.

1           (5) Evidence of a strong and sustained commit-  
2           ment to the students and schools.

3 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

4           For each of fiscal years 2005 through 2007, there  
5           are authorized to be appropriated to the National Science  
6           Foundation such sums as may be necessary for carrying  
7           out this Act, to be derived from amounts authorized by  
8           the National Science Foundation Authorization Act of  
9           2002.

○

SECTION-BY-SECTION ANALYSIS OF H.R. 4030,  
CONGRESSIONAL MEDAL FOR OUTSTANDING CONTRIBUTIONS IN MATH AND SCIENCE  
EDUCATION ACT OF 2004

**Sec. 1. Short Title.**

“Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004”

**Sec. 2. Definitions.**

Defines terms used in the text.

**Sec. 3. Establishment of Program.**

Requires the Director to establish a Congressional Medal for Outstanding Contributions in Math and Science Education program, which shall be designed to:

- (1) recognize private entities for outstanding efforts supporting elementary and secondary schools in improving student achievement in science, technology, engineering, and mathematics;
- (2) encourage private entities to support elementary and secondary schools to improve and underscore the importance of science, technology, engineering, and mathematics education; and
- (3) distribute information about the gold medal recipients available to schools, institutions of higher education, educators, parents, administrators, policy-makers, researchers, public and private entities, and the general public.

**Sec. 4. Medals.**

(a) Requires, within two years of enactment, the Director to annually name finalists according to the following criteria:

- (1) not more than 20 private entities with more than 500 employees; and
- (2) not more than 20 private entities with 500 or fewer employees.

Specifies that each finalist shall receive a citation describing the basis for the entity achieving status as a finalist.

(b) Requires, within two years of enactment, the Director to annually award medals to employers who are among the finalists in (a) according to the following criteria:

- (1) not more than 5 private entities with more than 500 employees; and
- (2) not more than 5 private entities with 500 or fewer employees.

(c) Distribution of Information.

- (1) Requires the Director to distribute information about the Congressional Medal recipients to schools, institutions of higher education, educators, parents, administrators, policy-makers, researchers, public and private entities, and the general public.
- (2) Allows any entity that is a finalist or receives a medal to use such information for advertising or other publicity purposes.

**Sec. 5. Eligibility.**

Makes any private entity that has, either alone or in partnership with for-profit and/or non-profit entities, assisted students, teachers, administrators, or other support staff in improving student achievement in science, technology, engineering, and mathematics in a school or community eligible to receive a medal. Requires the entity to be involved in a sustained manner for at least two years with at least one elementary or secondary school.

**Sec. 6. Application.**

Requires the Director to establish a system for accepting applications from entities seeking to be considered for the medal. Requires applications to include at least two letters of support, which may come from teachers, support staff, administrators, professional or business organizations, local, county, or State Departments of Education, and any other categories of persons or organizations as designated by the Director.

**Sec. 7. Selection.**

Requires the Director to give priority consideration to evidence of improved student achievement in selecting entities to receive medals. Requires the Director to consider, in addition to any other criteria the Director may establish:

- (1) Evidence of innovative approaches to increase interest by students in science, technology, engineering, and mathematics such as an increase in the number of students enrolled in advanced courses related to such fields;
- (2) Evidence of employee interaction with students or teachers to support and improve mathematics and science learning;
- (3) Evidence of success in positively influencing student attitudes and promoting education and career opportunities in science, technology, engineering, and mathematics;
- (4) Evidence of successful outreach to students, parents, and the community regarding the importance of mathematics and science education to the Nation's prosperity, job creation, and standard of living, as well as future earning potential for the individual; and
- (5) Evidence of a strong and sustained commitment to the students and schools.

**Sec. 8. Authorization of Appropriations.**

For fiscal years 2005–2007, authorizes such sums as are necessary for carrying out this act from amounts authorized by the National Science Foundation Act of 2002.



## **XXI. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 4030, CONGRESSIONAL MEDAL FOR OUTSTANDING CONTRIBUTIONS IN MATH AND SCIENCE EDUCATION ACT OF 2004**

**WEDNESDAY, MARCH 31, 2004**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON SCIENCE,  
Washington, DC.

The Committee met, pursuant to call, at 10:08 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Sherwood L. Boehlert [Chairman of the Committee] presiding.

Chairman BOEHLERT. I want to welcome everyone here this morning. As usual, we are moving forward with bills that are bipartisan. All right. Before I get to my more official statement, as those of you know, the Committee on Science meets today to consider the following measures. H.R. 3980, the *National Windstorm Impact Reduction Act of 2004*, H.R. 4030, *Congressional Medal for Outstanding Contributions in Math and Science Education of 2004*, and H.R. 3970, the *Green Chemistry Research and Development Act of 2004*, and in consultation with Mr. Gordon, we agree that is the order we are going to proceed. The first two should go relatively easily. We will have a little more discussion on the Green Chemistry Bill, and we hope by then to have more Members in attendance.

I ask unanimous consent for the authority to recess the Committee at any point, and without objection, so ordered.

We will now proceed with the opening statements, and as I said before I so rudely interrupted myself, welcome. As usual, we are moving forward with bills that are bipartisan and moderate. Bills that will help make a difference in people's lives in very real ways. I am especially pleased that two of the bills were introduced by freshmen Members, Dr. Gingrey and Mr. Neugebauer. We hope that all of these bills will be able to move through the House before the May recess, although the Wind Bill, because it has a referral to another Committee, may be a little bit longer. As is our practice, I am going to talk about the bills now and let the sponsors describe them in greater detail when we get to the markup of each bill.

I want to congratulate Mr. Neugebauer and Mr. Moore for coming up with an affordable, targeted version of this Wind Bill. Windstorms cause much loss of life and property. We need a program for wind like the one we have for earthquakes that targets federal

R&D resources toward developing better ways for buildings to better withstand windstorms. That is exactly what this bill will create.

I want to congratulate Chairman Smith and Ms. Johnson on their bill to create an award for businesses that help our nation's schools. This is clearly an activity we want to see increase, and this award will provide an additional incentive. The bill was inspired in part by the very successful Baldrige Award Program, which as we all know, emanated from this committee.

I want to take most of my time this morning to talk about Dr. Gingrey's Green Chemistry Bill because that is what this morning's debate will focus on. First let me say that this bill is exactly the kind of thing this committee should be doing; making sure that federal R&D programs give enough attention to important research that could advance national needs. The Federal Government has long had a smattering of Green Chemistry Programs, and even the Presidential Award, but we have lacked a sustained focused priority effort in this important area. This bill is designed to change that. The bill has attracted a surprisingly large number of amendments. I take that as a sign that we have hit on an important issue, one that has been previously neglected. So the amendments in that sense are a good sign.

Unfortunately, we are going to have to oppose these amendments in their current form. Let me emphasize that. In their current form, even though I always try to be open to other ideas and to look for grounds for compromise. We may reach some compromises this morning, and we will be offering substitutes for some amendments so that we can get at least some of the ideas behind them into the bill.

So what is wrong with the amendments? Well, the amendments fall into three categories. Several aim to increase spending in this bill. While I am sympathetic to the need to spend more in this program, we have a fiscal crisis, and both sound policy and sound politics dictate that we not make the program more expensive, particularly here and now. Hopefully, we will be able to spend more on green chemistry in later years.

The second category of amendment aims to elaborate on activities already explicitly or implicitly permitted in the bill. We don't want to weigh down the bill with very prescriptive program language, but we are willing to go somewhat farther than the introduced bill does in describing what kinds of activities might be funded through the Green Chemistry Program. I hope we can reach some agreement on these amendments.

The third category of amendment is the most problematic. These amendments would change the nature of this bill from one focused on R&D, and that is where I think we need the focus, to one that is more regulatory in nature. This bill's purpose is straightforward and non-controversial. We are trying to create an R&D program that will generate new ideas. If we add regulatory or procurement provisions, this bill will become controversial and will be referred to other Committees, and we will have nothing to show for our efforts. I am sympathetic to some of these ideas, but this bill is not the proper vehicle to carry them forward.

If prompted by this bill, Members are now interested in taking other actions related to green chemistry, and I hope they will be,

then they should introduce their own bills and we can decide how to proceed on them. But we shouldn't be turning an R&D bill into a complex and controversial procurement and regulatory measure. That is contrary to our original basic purpose, to focus on research and development. So I hope we can have a collegial and productive markup today. I don't think there is any controversy on the underlying bills. I am pleased that the Members want to expand these bills further, but we can't expand so much that they won't fit into the House schedule. And when all is said and done, we have got to be more than just a debating society for ideas. We have got to be a committee that generates good ideas that earn the support of our colleagues that get passed by the House, get passed by the Senate, and get signed into law by the President.

I now recognize Mr. Gordon for his opening statement.

[The prepared statement of Chairman Boehlert follows:]

PREPARED STATEMENT OF CHAIRMAN SHERWOOD BOEHLERT

MARCH 31, 2004

I want to welcome everyone here for our markup this morning. As usual, we are moving forward with bills that are bipartisan and moderate—bills that will help make a difference in people's lives in very real ways. I'm especially pleased that two of the bills were introduced by freshman Members—Dr. Gingrey and Mr. Neugebauer. We hope that all of these bills will be able to move through the House before the May recess, although the wind bill must go to another committee.

As is our practice, I'm going to talk about the bills now and let the sponsors describe them in greater detail when we get to the markup of each bill.

I want to congratulate Mr. Neugebauer and Mr. Moore for coming up with an affordable, targeted version of this wind bill. Windstorms cause much avoidable loss of life and property. We need a program for wind, like the one we have for earthquakes, that targets federal R&D resources toward developing ways for buildings to better withstand windstorms. That's exactly what this bill will create.

I want to congratulate Chairman Smith and Ms. Johnson on their bill to create an award for businesses that help our nation's schools. This is clearly an activity we want to see increase, and this award will provide an additional incentive. The bill is inspired in part by the very successful Baldrige Award program that this committee created.

I want to take most of my time this morning to talk about Dr. Gingrey's green chemistry bill because that's what this morning's debates will center on.

First let me say that this bill is exactly the kind of thing this Committee should be doing—making sure that federal R&D programs give enough attention to important research that could advance national needs. The Federal Government has long had a smattering of green chemistry programs and even a Presidential award, but we've lacked a sustained, focused and priority effort in this important area. This bill is designed to change that.

The bill has attracted a surprisingly large number of amendments. I take that as a sign that we have hit on an important issue—one that has been previously neglected. So the amendments, in that sense, are a good sign.

Unfortunately, we are going to have to oppose these amendments in their current form, even though I always try to be open to others' ideas and to look for grounds for compromise. We may yet reach some compromises this morning, and we will be offering substitutes for some amendments so that we can get at least some of the ideas behind them into the bill.

So what's wrong with the amendments? Well, the amendments fall into three categories. Several aim to increase the spending in this bill. While I'm sympathetic to the need to spend more on this program, we have a fiscal crisis, and both sound policy and sound politics dictate that we not make the program more expensive. Hopefully, we will be able to spend more on green chemistry in later years.

The second category of amendment aims to elaborate on activities already explicitly or implicitly permitted in the bill.

We don't want to weigh the bill down with very prescriptive program language, but we are willing to go somewhat farther than the introduced bill does in describ-

ing what kinds of activities might be funded through the green chemistry program. I hope we can reach agreement on these amendments.

The third category of amendment is the most problematic; these amendments would change the nature of this bill from one focused on R&D to one that is more regulatory in nature. This bill's purpose is straight-forward and non-controversial; we're trying to create an R&D program that will generate new ideas.

If we add regulatory or procurement provisions, this bill will become controversial and will be referred to other committees, and we will have nothing to show for our efforts. I'm sympathetic to some of these ideas, but this bill is not the proper vehicle for them.

If, prompted by this bill, Members are now interested in taking other actions related to green chemistry, then they should introduce their own bills and we can decide how to proceed on them. But we shouldn't be turning an R&D bill into a complex and controversial procurement and regulatory measure. If this bill doesn't pass, there will be fewer green chemistry ideas to get companies and the government to implement.

So I hope we can have a collegial and productive markup today. I don't think there is any controversy on the underlying bills. I'm pleased that Members want to expand these bills further, but we can't expand so much that they won't fit into the House schedule.

Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. We on the Democratic side are pleased that you have moved forward with these three bills for consideration today. The *National Windstorm Impact Reduction Act of 2004* is patterned after legislation written by Congressman Dennis Moore, the bill's chief sponsor. We all owe a debt of gratitude to Congressman Moore for identifying the need for a multi-agency Wind Hazard Reduction Program five and a half years ago. He worked to reach consensus among the agencies on the scope of such legislation. He founded the Wind Caucus to promote the program, and he worked with the private sector and the university community to make sure that the needs of those will carry out the work reflected in the bill's context or text.

Time is of the essence on this bill. Many of our districts have been impacted by major windstorms since Mr. Moore began this effort, and we are pleased that all of the major elements of the Moore—the log bill can be found in the new Neugebauer-Moore bill. Congressman Moore will go into greater detail on this point later in the markup. It is regrettable though that the proposed funding for the program had to be reduced so dramatically to perhaps a quarter of what we are spending on the problem of earthquake research. But the bill is still a positive start.

In contrast, the Green Chemistry Research and Development Act of 2004 has not had such a lengthy period of maturation. It was introduced just 15 years ago—I mean 15 days ago, excuse me, and was the subject of a single hearing the following day. Our issue today is more than with what is not—is more what is not in the bill than what is in the bill. In other words, the bill is okay as a start, but it is not—does not go far enough to promote the adoption of green chemistry. Several Democratic Members on the Committee will offer amendments today in an effort to expand the impact and importance of the underlying legislation. Nearly all of these amendments are based on testimony given at our hearing by witnesses earlier this month. We hope the Chairman will be able to support many of these amendments, which we will offer in a constructive spirit.

The final bill today, H.R. 4030, is non-controversial. Congressman Smith has worked closely with Congresswoman Johnson in perfecting the bill. We all agree with the purpose of honoring private-sector organizations that make outstanding contributions to strengthening science, mathematics, technology engineering education in our schools.

Chairman BOEHLERT. Without objection, all Members may place opening statements in the record at this point.

[The prepared statement of Mr. Honda follows:]

PREPARED STATEMENT OF REPRESENTATIVE MICHAEL M. HONDA

I thank Chairman Smith and Ranking Member Johnson for introducing this legislation and holding this hearing and markup today.

In Silicon Valley, we have been fortunate to have companies involved in K-12 education in a variety of ways for many years. Contributions vary widely, ranging from the employees of individual companies such as Xilinx who donate stock options to schools to consortia of many companies and groups.

Industry Initiatives for Science and Math Education (IISME) was founded by a consortium of Bay Area industries in partnership with the University of California at Berkeley. IISME seeks to transform teaching and learning through industry-education partnerships by focusing on teachers as the primary agents for effecting change and offering a number of professional development opportunities for professional development for K-12 teachers.

Workforce Silicon Valley has brought together leading Silicon Valley employers, represented by the Silicon Valley Manufacturing Group (SVMG), with local K-12 districts, colleges and training organizations, employers, parents, and community members, to narrow the gap between the skills of Silicon Valley youth and the needs of high-performance organizations.

The Resource Area for Teachers provides thousands of Bay Area teachers and community groups with a wide range of interactive learning materials, enhancing math, science, and technology programs. Materials are surplus items donated by over 1,000 local businesses.

These examples represent only a small piece of the wide range of ways that private sector entities can help to improve our K-12 science education programs. All of these private entities have reasons to engage in this activity, primarily philanthropy but often because they recognize that it provides a benefit to them, in a more well-prepared future workforce. I don't know that the recognition of a medal is going to encourage more participation in such programs.

Current efforts are certainly worthy of commendation, but I wonder whether it might be a better use of federal resources to work on improving the K-12 system so that such programs would not be necessary. However, if the medals program will successfully distribute information about the efforts going on nationwide and help generate more efforts like this, it may be worth the effort. At this hearing and markup, I hope the witnesses will enlighten us on whether these medals will actually encourage more of this kind of effort.

[The prepared statement of Mr. Davis follows:]

PREPARED STATEMENT OF REPRESENTATIVE LINCOLN DAVIS

I would like to start by thanking the Chair and Ranking Member for the opportunity to speak at today's markup.

There is bipartisan support among Members of the Science Committee for efforts to encourage green chemistry, or the development of materials and processes that are not harmful to people or the environment. Research and building construction at the Oak Ridge National Laboratory (ORNL) are shining examples of the good things that happen when green chemistry approaches are put into practice.

ORNL continues to contribute to a range of scientific and technological needs in green chemistry. New chemical approaches that use benign carbon dioxide (CO<sub>2</sub>) instead of noxious industrial solvents have been deployed commercially in new, safer dry cleaning technologies. Researchers have also worked to develop methods that result in decreased use of materials that are harmful to the environment.

Even Oak Ridge buildings are getting "green." The environmentally friendly design off a new 370,000 square foot complex has netted ORNL a 2003 Excellence in Construction award from a major contractors association. Developing methods and products that are good for the environment is important. In the long run, it will

save us untold sums in energy saved and damage deterred. I am proud that Oak Ridge is leading the way in green chemistry efforts and would encourage others to follow its example.

I thank our distinguished Chair and Ranking Member for the opportunity to speak this morning and yield back to the Chair.

[The prepared statement of Ms. Jackson Lee follows:]

PREPARED STATEMENT OF REPRESENTATIVE SHEILA JACKSON LEE

Mr. Chairman,

I rise in support of this excellent bill. I would like to commend my colleague from Michigan, Congressman Smith, and my fellow colleague from Texas, Congresswoman Eddie Bernice Johnson, for their leadership on this issue.

It has been said that "it takes a village to raise a child." This bill captures that spirit by encouraging private entities to enhance the educational experiences of our children in math and science.

This legislation will encourage partnerships between private sector entities and K-12 schools to support activities to improve student achievement in math and science by formally recognizing companies and non-profit private sector organizations that have made substantial efforts in this area.

Every year up to five private sector organizations with 500 or fewer employees and to up to five organizations with more than 500 employees will be chosen through a competition administered by the National Science Foundation. Companies and organizations that earn awards will receive recognition in the form of a Congressional medal.

This is a small but symbolic gesture for good works by our nation's profit and non-profit groups that have assisted our teachers in improving student achievement in math, science, technology, engineering, and mathematics.

Of course, this bill is not enough. We are in a budget crisis these days and the Administration and many on the Hill seem to feel that we can cut corners by slashing education programs. This is a penny wise and a pound foolish. We must make meaningful investments in the future of our children, through education funding that will have a positive impact on our industries and our economy.

This bill encourages industry to become a partner in that important job. That is good. But we must make sure that the Federal Government is doing its share as well.

Thank you.

Mr. SMITH OF MICHIGAN. Mr. Chairman, may I make a short comment?

Chairman BOEHLERT. You certainly may, Chairman Smith.

Mr. SMITH OF MICHIGAN. All of us here, in this committee especially, have been looking at how we improve math and science education, and maybe this is a small encouragement to have private sectors more involved—in the private sector in—by way of non-profit organizations, by the way of business and industry to do something that is going to be in their long-term advantage, as well as the advantage of the United States to improve and increase the education in math and science and the number of students that are interested and can perform well.

This particular bill has no cost, but can be a stimulant to hopefully have more companies participate in working with schools and communities working with schools. And so I hope we can approve the amendment of the Chairman that allows us to do a technical change on alternating years for reports from the National Science Foundation.

Chairman BOEHLERT. Thank you very much for the intervention. Now here is what I would like to do, with the indulgence of all my colleagues. We have three bills before us, two of them I think there is almost unanimous agreement on. Let us dispense with them immediately, and then focus our time and attention on the Green

Chemistry Bill, which has us all interested, and we are coming from different perspectives. Is that—do I see from a nod of the heads that that is a good plan? Let us go. All right.

Chairman BOEHLERT. We will now consider the Bill H.R. 4030, Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004, and the Chair now yields five minutes to Mr. Smith of Michigan, distinguished Chair of the Subcommittee to introduce the bill. Mr. Smith?

Mr. SMITH OF MICHIGAN. Mr. Chairman, is the bill properly before us at this time?

Chairman BOEHLERT. It is.

Mr. SMITH OF MICHIGAN. I support—the Chairman's amendment to the bill is similar to the amendment that we just passed on the other two bills, and I think we all support that amendment requested by NSF. This legislation encourages the business and industry sector and communities to work closer with schools in supporting math and science education. I would be glad to respond to any questions from—I yield to my colleagues for any questions or comments, but with that, I think—it is supported by NSF. We had an excellent hearing, with business and industry supporting the legislation in Subcommittee, and I hope my colleagues will join me in passing the bill.

Chairman BOEHLERT. Thank you so much, and as you have pointed out so often, it is patterned after the Malcolm Baldrige Award Program, which has proven to be one of the most outstanding incentive programs ever developed by any Congress anytime. The Chair recognizes Mr. Gordon.

Mr. GORDON. I yield to Ms. Johnson.

Chairman BOEHLERT. Ms. Johnson?

Ms. JOHNSON. Thank you very much, Mr. Chairman and Ranking Member. As a co-sponsor of this legislation I speak in support of favorable consideration by the Research Subcommittee today. The bill will have mobilized greater efforts by the private sector in helping our schools to achieve the goal of higher achievement in math and science for all students, and I would like to commend Chairman Smith for originating the concept for the bill and in working with me in a collegiate way in developing the final product, especially for inclusion of language that emphasizes the importance of activities that increase the participation and improve the achievement of women and minorities in math and science.

This language helps satisfy demands for the science and technology workforce for our growing college-aged minority population, and it helps to ensure that all citizens will achieve a level of technological literacy needed to function in the 21st century.

Mr. Chairman, I want to thank you for bringing H.R. 4030 before the Committee for its consideration today, and I am pleased to recommend the bill to my colleagues and seek their approval to favorably report the legislation. Thank you.

Mr. SMITH OF MICHIGAN. Mr. Chairman, to your left—

Chairman BOEHLERT. Yes?

Mr. SMITH OF MICHIGAN. May I request that there be unanimous consent to include at this point in the record my complete explanation and statement on the bill?

[The prepared statement of Mr. Smith follows:]

## PREPARED STATEMENT OF REPRESENTATIVE NICK SMITH

H.R. 4030, the *Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*, is intended to encourage companies to work with K-12 schools to improve math and science education and recognize the companies that do an exceptional job already.

Business, industry and other private groups have so much to offer and so much to gain by helping to excite an interest in students and keep that interest and ability burning as they enter college or begin their careers. Many companies are already doing a lot. In addition to recognizing their efforts, H.R. 4030 requires the National Science Foundation to make information about award winners publicly available so that examples of techniques and strategies can be utilized around the country.

This bill also creates separate categories of awards for private entities with more than 500 employees and those with 500 or less employees. Everyone from large corporations to small manufacturers has a role to play in improving math and science education and should be able to receive recognition for their efforts.

H.R. 4030 establishes criteria that NSF shall consider in determining medal finalists and winners, including priority consideration for evidence of improved student achievement in science, technology, engineering, or mathematics by students. The legislation also allows for the consideration of additional criteria established by the Director of NSF.

Yesterday, the Research Subcommittee favorably reported H.R. 4030 and I urge the Full Committee to do the same today.

**COMMITTEE ON SCIENCE  
U.S. HOUSE OF REPRESENTATIVES  
WASHINGTON, DC 20515**

March 30, 2004

MEMORANDUM

TO: Sherwood L. Boehlert, Chairman  
Committee on Science

FROM: Nick Smith, Chairman  
Subcommittee on Research

SUBJECT: Subcommittee markup of H.R. 4030, Congressional Medal for  
Outstanding Contributions in Math and Science Education Act of  
2004

On March 30, 2004, the Subcommittee on Research held a markup of H.R. 4030, Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004. The subcommittee adopted an amendment in the nature of a substitute offered by Mr. Smith (MI) by a voice vote. The substitute amendment and a section-by-section analysis of the substitute amendment are attached.

## Attachments (2)

--Amendment in the nature of a substitute  
--Section-by-section analysis (See Appendix.)



**AMENDMENT IN THE NATURE OF A SUBSTITUTE  
TO H.R. 4030  
OFFERED BY MR. SMITH OF MICHIGAN**

Strike all after the enacting clause and insert the following:

**1 SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Congressional Medal  
3 for Outstanding Contributions in Math and Science Edu-  
4 cation Act of 2004”.

**5 SEC. 2. DEFINITIONS.**

6 In this Act:

7 (1) DIRECTOR.—The term “Director” means  
8 the Director of the National Science Foundation.

9 (2) ELEMENTARY SCHOOL AND SECONDARY  
10 SCHOOL.—The terms “elementary school” and “sec-  
11 ondary school” have the meaning given those terms  
12 in section 9101 of the Elementary and Secondary  
13 Education Act of 1965 (20 U.S.C. 7801).

**14 SEC. 3. ESTABLISHMENT OF PROGRAM.**

15 The Director shall establish a Congressional Medal  
16 for Outstanding Contributions in Math and Science Edu-  
17 cation program, which shall be designed to—

1           (1) recognize private entities for outstanding ef-  
2       forts supporting elementary and secondary schools  
3       in improving student achievement in science, tech-  
4       nology, engineering, and mathematics;

5           (2) encourage private entities to support ele-  
6       mentary and secondary schools to improve and un-  
7       derscore the importance of science, technology, engi-  
8       neering, and mathematics education; and

9           (3) make information about medal recipients  
10      available to schools, institutions of higher education,  
11      educators, parents, administrators, policymakers, re-  
12      searchers, public and private entities, and the gen-  
13      eral public.

14   **SEC. 4. MEDALS.**

15       (a) **FINALISTS.**—Beginning not later than 2 years  
16      after the date of enactment of this Act, the Director shall  
17      annually name as finalists for medals under this Act—

18           (1) not more than 20 private entities with more  
19           than 500 employees; and

20           (2) not more than 20 private entities with 500  
21           or fewer employees.

22      Each finalist shall receive a citation describing the basis  
23      for the entity achieving status as a finalist.

24       (b) **MEDAL WINNERS.**—Beginning not later than 2  
25      years after the date of enactment of this Act, from among

1 finalists named under subsection (a), the Director shall  
2 annually award medals under this Act to—

3 (1) not more than 5 private entities with more  
4 than 500 employees; and

5 (2) not more than 5 private entities with 500  
6 or fewer employees.

7 (c) DISTRIBUTION OF INFORMATION.—(1) The Di-  
8 rector shall distribute information about the Congressional  
9 Medal for Outstanding Contributions in Math and Science  
10 Education recipients in a timely and efficient manner (in-  
11 cluding through the use of a searchable online database)  
12 to schools, institutions of higher education, educators, par-  
13 ents, administrators, policymakers, researchers, public  
14 and private entities, and the general public.

15 (2) Any entity that is a finalist or receives a medal  
16 under this section may use such information for adver-  
17 tising and other publicity purposes.

18 **SEC. 5. ELIGIBILITY.**

19 Eligibility to receive medals under section 4 of this  
20 Act shall be limited to private entities that—

21 (1) have, whether working alone or in partner-  
22 ship with for-profit or nonprofit entities, assisted  
23 students, teachers, administrators, or other support  
24 staff to improve student achievement in science,

1 technology, engineering, and mathematics in a  
2 school or community; and

3 (2) have been involved in such activities in a  
4 sustained manner for at least 2 years with at least  
5 one elementary or secondary school.

6 **SEC. 6. APPLICATION.**

7 The Director shall establish a system for accepting  
8 applications from entities seeking to be considered for a  
9 medal under this Act. Applications shall include at least  
10 two letters of support, which may come from teachers,  
11 professional support staff, administrators, professional or  
12 business organizations, local, county, or State Depart-  
13 ments of Education, or any other category of persons as  
14 designated by the Director. Letters of support shall de-  
15 scribe the reasons the entity deserves the medal.

16 **SEC. 7. SELECTION.**

17 In selecting entities to receive medals under this Act,  
18 the Director shall give priority consideration to evidence  
19 of improved achievement in science, technology, engineer-  
20 ing, or mathematics by students, including improved  
21 achievement by individuals identified in section 33 or 34  
22 of the Science and Engineering Equal Opportunities Act  
23 (42 U.S.C. 1885a or 1885b). In addition to any other cri-  
24 teria the Director may establish, the Director shall also  
25 consider the following:

1           (1) Evidence of innovative approaches to in-  
2       crease interest in science, technology, engineering,  
3       and mathematics by students, including individuals  
4       identified in section 33 or 34 of the Science and En-  
5       gineering Equal Opportunities Act (42 U.S.C. 1885a  
6       or 1885b). One measure of such evidence may be an  
7       increase in the number of students enrolled in ad-  
8       vanced courses related to such fields.

9           (2) Evidence of employee interaction with stu-  
10      dents or teachers to support and improve mathe-  
11      matics and science learning.

12          (3) Evidence of success in positively influencing  
13      student attitudes and promoting education and ca-  
14      reer opportunities in science, technology, engineer-  
15      ing, and mathematics.

16          (4) Evidence of successful outreach to students,  
17      parents, and the community regarding the impor-  
18      tance of mathematics and science education to the  
19      Nation's prosperity, job creation, and standard of  
20      living, as well as future earning potential for the in-  
21      dividual.

22          (5) Evidence of a strong and sustained commit-  
23      ment to the students and schools.

**1 SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

2 For each of fiscal years 2005 through 2007, there  
3 are authorized to be appropriated to the National Science  
4 Foundation such sums as may be necessary for carrying  
5 out this Act, to be derived from amounts authorized by  
6 the National Science Foundation Authorization Act of  
7 2002.

Chairman BOEHLERT. I ask unanimous consent that the bill is considered as read and open to amendment at any point, and that the Members proceed with the amendments in the order of the roster. And without objection, that is so ordered.

The first amendment on the roster is an amendment in the nature of a substitute offered by the Chair. I ask unanimous consent that the amendment in the nature of a substitute be treated as original text for purposes of amendment of the five-minute rule. I have an amendment at the desk, and the Clerk shall report the amendment.

The CLERK. Amendment in the nature of a substitute to H.R. 4030 offered by Mr. Boehlert.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading, and without objection, so ordered.

I yield myself such time as I might consume to discuss the amendment. I recognize myself for such time as I might consume.

And just let me say before I proceed, I want to thank Ms. Johnson particularly for the outstanding work and cooperation. We really appreciate it. But then we thank you quite often for your outstanding work on this Committee. Thank you.

This amendment is an amendment in the nature of a substitute that amends H.R. 4030 to include the very minor changes that were considered and passed by the Research Subcommittee at a markup yesterday morning. It also makes small technical corrections and includes, as does the other bills we have considered—or are considering this morning, language modifying the report deadlines for NSF's statutorily required report on women and minorities in science and engineering. It has been worked out with the minority and I urge all Members to support it.

Is there any further discussion on the amendment in the nature of a substitute? Are there any amendments to the amendment in the nature of a substitute? Hearing none, the vote occurs on the amendment in the nature of a substitute. All in favor, say aye. Opposed, no. The ayes have it, and the amendment in the nature of a substitute is agreed to.

The question is now on the bill H.R. 4030, *Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004*, as amended. All in favor, say aye. Those opposed, say no. In the opinion of the Chair, the ayes have it. I will now recognize Mr. Gordon for a motion.

Mr. GORDON. Mr. Chairman, I move that the Committee favorably report H.R. 4030 as amended to the House, with the recommendation that the bill, as amended, do pass. Furthermore, I move that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes, and that the Chairman take all necessary steps to bring the bill before the House for consideration.

Chairman BOEHLERT. The question is on the motion to report the bill, as amended, favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes appear to have it, and the resolution is favorably reported. Without objection, the motion to reconsider is laid upon the table. I move that Members have two subsequent calendar days in which to submit supplemental minority or additional views on the measure.

I move pursuant to Clause 1 of Rule 22 of the Rules of the House of Representatives that the Committee authorizes the Chairman to offer such motions as may be necessary in the House to adopt and pass H.R. 4030 as amended, and to go to conference with the Senate on H.R. 4030 or a similar bill. Without objection, so ordered.

Chairman BOEHLERT. The Committee is recessed until 10:00 tomorrow morning.

[Whereupon, at 12:00 p.m., the Committee recessed, to reconvene at 10:00 a.m. Thursday, April 1, 2004.]



## Appendix:

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AMENDMENT ROSTER, H.R. 4030, SECTION-BY-SECTION ANALYSIS

COMMITTEE ON SCIENCE  
FULL COMMITTEE MARKUP

MARCH 31, 2004

AMENDMENT ROSTER

H.R. 4030, Congressional Medal for Outstanding Contributions in Math and  
Science Education Act of 2004

--Motion to adopt the bill, as amended: agreed to by a voice vote.  
--Motion to report the bill, as amended: agreed to by a voice vote.

No.	Sponsor	Description	Results
1.	Mr. Boehlert	Amendment in the Nature of a Substitute to H.R. 4030.	--Adopted by a voice vote.

**AMENDMENT IN THE NATURE OF A SUBSTITUTE  
TO H.R. 4030  
OFFERED BY MR. BOEHLERT**

Strike all after the enacting clause and insert the following:

**1 SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Congressional Medal  
3 for Outstanding Contributions in Math and Science Edu-  
4 cation Act of 2004”.

**5 SEC. 2. DEFINITIONS.**

6 In this Act:

7 (1) DIRECTOR.—The term “Director” means  
8 the Director of the National Science Foundation.

9 (2) ELEMENTARY SCHOOL AND SECONDARY  
10 SCHOOL.—The terms “elementary school” and “sec-  
11 ondary school” have the meaning given those terms  
12 in section 9101 of the Elementary and Secondary  
13 Education Act of 1965 (20 U.S.C. 7801).

**14 SEC. 3. ESTABLISHMENT OF PROGRAM.**

15 The Director shall establish a Congressional Medal  
16 for Outstanding Contributions in Math and Science Edu-  
17 cation program, which shall be designed to—

(1) recognize private entities for outstanding efforts supporting elementary and secondary schools in improving student achievement in science, technology, engineering, and mathematics;

(2) encourage private entities to support elementary and secondary schools to improve and underscore the importance of science, technology, engineering, and mathematics education; and

(3) make information about medal recipients available to schools, institutions of higher education, educators, parents, administrators, policymakers, researchers, public and private entities, and the general public.

**SEC. 4. MEDALS.**

(a) FINALISTS.—Beginning not later than 2 years after the date of enactment of this Act, the Director shall annually name as finalists for medals under this Act—

(1) not more than 20 private entities with more than 500 employees; and

(2) not more than 20 private entities with 500 or fewer employees.

Each finalist shall receive a citation describing the basis for the entity achieving status as a finalist.

(b) MEDAL WINNERS.—Beginning not later than 2 years after the date of enactment of this Act, from among

1 finalists named under subsection (a), the Director shall  
2 annually award medals under this Act to—

3 (1) not more than 5 private entities with more  
4 than 500 employees; and

5 (2) not more than 5 private entities with 500  
6 or fewer employees.

7 (c) DISTRIBUTION OF INFORMATION.—(1) The Di-  
8 rector shall distribute information about the Congressional  
9 Medal for Outstanding Contributions in Math and Science  
10 Education recipients in a timely and efficient manner (in-  
11 cluding through the use of a searchable online database)  
12 to schools, institutions of higher education, educators, par-  
13 ents, administrators, policymakers, researchers, public  
14 and private entities, and the general public.

15 (2) Any entity that is a finalist or receives a medal  
16 under this section may use such information for adver-  
17 tising and other publicity purposes.

18 **SEC. 5. ELIGIBILITY.**

19 Eligibility to receive medals under section 4 of this  
20 Act shall be limited to private entities that—

21 (1) have, whether working alone or in partner-  
22 ship with for-profit or nonprofit entities, assisted  
23 students, teachers, administrators, or other support  
24 staff to improve student achievement in science,

1 technology, engineering, and mathematics in a  
2 school or community; and

3 (2) have been involved in such activities in a  
4 sustained manner for at least 2 years with at least  
5 one elementary or secondary school.

6 **SEC. 6. APPLICATION.**

7 The Director shall establish a system for accepting  
8 applications from entities seeking to be considered for a  
9 medal under this Act. Applications shall include at least  
10 two letters of support, which may come from teachers,  
11 professional support staff, administrators, professional or  
12 business organizations, local, county, or State Depart-  
13 ments of Education, or any other category of persons as  
14 designated by the Director. Letters of support shall de-  
15 scribe the reasons the entity deserves the medal.

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17 In selecting entities to receive medals under this Act,  
18 the Director shall give priority consideration to evidence  
19 of improved achievement in science, technology, engineer-  
20 ing, or mathematics by students, including improved  
21 achievement by individuals identified in section 33 or 34  
22 of the Science and Engineering Equal Opportunities Act  
23 (42 U.S.C. 1885a or 1885b). In addition to any other cri-  
24 teria the Director may establish, the Director shall also  
25 consider the following:

1           (1) Evidence of innovative approaches to in-  
2       crease interest in science, technology, engineering,  
3       and mathematics by students, including individuals  
4       identified in section 33 or 34 of the Science and En-  
5       gineering Equal Opportunities Act (42 U.S.C. 1885a  
6       or 1885b). One measure of such evidence may be an  
7       increase in the number of students enrolled in ad-  
8       vanced courses related to such fields.

9           (2) Evidence of employee interaction with stu-  
10      dents or teachers to support and improve science,  
11      technology, engineering, and mathematics learning.

12          (3) Evidence of success in positively influencing  
13      student attitudes and promoting education and ca-  
14      reer opportunities in science, technology, engineer-  
15      ing, and mathematics.

16          (4) Evidence of successful outreach to students,  
17      parents, and the community regarding the impor-  
18      tance of science, technology, engineering, and mathe-  
19      matics education to the Nation's prosperity, job cre-  
20      ation, and standard of living, as well as future earn-  
21      ing potential for the individual.

22          (5) Evidence of a strong and sustained commit-  
23      ment to the students and schools.

**1 SEC. 8. BIENNIAL REPORT.**

2 Section 37(a) of the Science and Engineering Equal  
3 Opportunities Act (42 U.S.C. 1885d(a)) is amended by  
4 striking "By January 30, 1982, and biennially thereafter"  
5 and inserting "By January 30 of each odd-numbered  
6 year".

**7 SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

8 For each of fiscal years 2005 through 2007, there  
9 are authorized to be appropriated to the National Science  
10 Foundation such sums as may be necessary for carrying  
11 out this Act, to be derived from amounts authorized by  
12 the National Science Foundation Authorization Act of  
13 2002.



108TH CONGRESS  
2D SESSION

# H. R. 4030

To establish the Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize private entities for their outstanding contributions to elementary and secondary science, technology, engineering, and mathematics education.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 25, 2004

Mr. SMITH of Michigan (for himself and Ms. EDDIE BERNICE JOHNSON of Texas) introduced the following bill, which was referred to the Committee on Science

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## A BILL

To establish the Congressional Medal for Outstanding Contributions in Math and Science Education program to recognize private entities for their outstanding contributions to elementary and secondary science, technology, engineering, and mathematics education.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*  
3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Congressional Medal  
5 for Outstanding Contributions in Math and Science Edu-  
6 cation Act of 2004”.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **DIRECTOR.**—The term “Director” means  
4 the Director of the National Science Foundation.

5 (2) **ELEMENTARY SCHOOL AND SECONDARY**  
6 **SCHOOL.**—The terms “elementary school” and “sec-  
7 ondary school” have the meaning given those terms  
8 in section 9101 of the Elementary and Secondary  
9 Education Act of 1965 (20 U.S.C. 7801).

10 **SEC. 3. ESTABLISHMENT OF PROGRAM.**

11 The Director shall establish a Congressional Medal  
12 for Outstanding Contributions in Math and Science Edu-  
13 cation program, which shall be designed to—

14 (1) recognize private entities for outstanding ef-  
15 forts supporting elementary and secondary schools  
16 in improving student achievement in science, tech-  
17 nology, engineering, and mathematics;

18 (2) encourage private entities to support ele-  
19 mentary and secondary schools to improve and un-  
20 derSCORE the importance of science, technology, engi-  
21 neering, and mathematics education; and

22 (3) make information about medal recipients  
23 available to schools, institutions of higher education,  
24 educators, parents, administrators, policymakers, re-  
25 searchers, public and private entities, and the gen-  
26 eral public.

1 **SEC. 4. MEDALS.**

2 (a) **FINALISTS.**—Beginning not later than 2 years  
3 after the date of enactment of this Act, the Director shall  
4 annually name as finalists for medals under this Act—

5 (1) not more than 20 private entities with more  
6 than 500 employees; and

7 (2) not more than 20 private entities with 500  
8 or fewer employees.

9 Each finalist shall receive a citation describing the basis  
10 for the entity achieving status as a finalist.

11 (b) **MEDAL WINNERS.**—Beginning not later than 2  
12 years after the date of enactment of this Act, from among  
13 finalists named under subsection (a), the Director shall  
14 annually award medals under this Act to—

15 (1) not more than 5 private entities with more  
16 than 500 employees; and

17 (2) not more than 5 private entities with 500  
18 or fewer employees.

19 (c) **DISTRIBUTION OF INFORMATION.**—(1) The Di-  
20 rector shall distribute information about the Congressional  
21 Medal for Outstanding Contributions in Math and Science  
22 Education recipients under this Act in a timely and effi-  
23 cient manner (including through the use of a searchable  
24 online database) to schools, institutions of higher edu-  
25 cation, educators, parents, administrators, policymakers,

1 researchers, public and private entities, and the general  
2 public.

3 (2) An entity that is a finalist or receives a medal  
4 under this section may use such information for adver-  
5 tising and other publicity purposes.

6 **SEC. 5. ELIGIBILITY.**

7 Any private entity that has, whether working alone  
8 or in partnership with for-profit or nonprofit entities, as-  
9 sisted students, teachers, administrators, or other support  
10 staff to improve student achievement in science, tech-  
11 nology, engineering, and mathematics in a school or com-  
12 munity shall be eligible to receive a medal under section  
13 4. The entity must have been involved in such activities  
14 in a sustained manner for at least 2 years with at least  
15 one elementary or secondary school.

16 **SEC. 6. APPLICATION.**

17 The Director shall establish a system for accepting  
18 applications from entities seeking to be considered for a  
19 medal under this Act. Applications shall include at least  
20 two letters of support, which may come from teachers,  
21 professional support staff, administrators, professional or  
22 business organizations, local, county, or State Depart-  
23 ments of Education, or any other category of persons as  
24 designated by the Director. Letters of support shall de-  
25 scribe the reasons the entity deserves the medal.

1 **SEC. 7. SELECTION.**

2 In selecting entities to receive medals under this Act,  
3 the Director shall give priority consideration to evidence  
4 of improved student achievement in science, technology,  
5 engineering, or mathematics. In addition to any other cri-  
6 teria the Director may establish, the Director shall also  
7 consider the following:

8 (1) Evidence of innovative approaches to in-  
9 crease interest by students in science, technology,  
10 engineering, and mathematics, such as an increase  
11 in the number of students enrolled in advanced  
12 courses related to such fields.

13 (2) Evidence of employee interaction with stu-  
14 dents or teachers to support and improve mathe-  
15 matics and science learning.

16 (3) Evidence of success in positively influencing  
17 student attitudes and promoting education and ca-  
18 reer opportunities in science, technology, engineer-  
19 ing, and mathematics.

20 (4) Evidence of successful outreach to students,  
21 parents, and the community regarding the impor-  
22 tance of mathematics and science education to the  
23 Nation's prosperity, job creation, and standard of  
24 living, as well as future earning potential for the in-  
25 dividual.

1           (5) Evidence of a strong and sustained commit-  
2           ment to the students and schools.

3 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

4           For each of fiscal years 2005 through 2007, there  
5           are authorized to be appropriated to the National Science  
6           Foundation such sums as may be necessary for carrying  
7           out this Act, to be derived from amounts authorized by  
8           the National Science Foundation Authorization Act of  
9           2002.

○

SECTION-BY-SECTION ANALYSIS OF H.R. 4030,  
CONGRESSIONAL MEDAL FOR OUTSTANDING CONTRIBUTIONS IN MATH AND SCIENCE  
EDUCATION ACT OF 2004

**Sec. 1. Short Title.**

“Congressional Medal for Outstanding Contributions in Math and Science Education Act of 2004”

**Sec. 2. Definitions.**

Defines terms used in the text.

**Sec. 3. Establishment of Program.**

Requires the Director to establish a Congressional Medal for Outstanding Contributions in Math and Science Education program, which shall be designed to:

- (1) recognize private entities for outstanding efforts supporting elementary and secondary schools in improving student achievement in science, technology, engineering, and mathematics;
- (2) encourage private entities to support elementary and secondary schools to improve and underscore the importance of science, technology, engineering, and mathematics education; and
- (3) distribute information about the gold medal recipients available to schools, institutions of higher education, educators, parents, administrators, policy-makers, researchers, public and private entities, and the general public.

**Sec. 4. Medals.**

(a) Requires, within two years of enactment, the Director to annually name finalists according to the following criteria:

- (1) not more than 20 private entities with more than 500 employees; and
- (2) not more than 20 private entities with 500 or fewer employees.

Specifies that each finalist shall receive a citation describing the basis for the entity achieving status as a finalist.

(b) Requires, within two years of enactment, the Director to annually award medals to employers who are among the finalists in (a) according to the following criteria:

- (1) not more than 5 private entities with more than 500 employees; and
- (2) not more than 5 private entities with 500 or fewer employees.

(c) Distribution of Information.

- (1) Requires the Director to distribute information about the Congressional Medal recipients to schools, institutions of higher education, educators, parents, administrators, policy-makers, researchers, public and private entities, and the general public.
- (2) Allows any entity that is a finalist or receives a medal to use such information for advertising or other publicity purposes.

**Sec. 5. Eligibility.**

Makes any private entity that has, either alone or in partnership with for-profit and/or non-profit entities, assisted students, teachers, administrators, or other support staff in improving student achievement in science, technology, engineering, and mathematics in a school or community eligible to receive a medal. Requires the entity to be involved in a sustained manner for at least two years with at least one elementary or secondary school.

**Sec. 6. Application.**

Requires the Director to establish a system for accepting applications from entities seeking to be considered for the medal. Requires applications to include at least two letters of support, which may come from teachers, support staff, administrators, professional or business organizations, local, county, or State Departments of Education, and any other categories of persons or organizations as designated by the Director.

**Sec. 7. Selection.**

Requires the Director to give priority consideration to evidence of improved student achievement in selecting entities to receive medals. Requires the Director to consider, in addition to any other criteria the Director may establish:

- (1) Evidence of innovative approaches to increase interest by students in science, technology, engineering, and mathematics such as an increase in the number of students enrolled in advanced courses related to such fields;
- (2) Evidence of employee interaction with students or teachers to support and improve mathematics and science learning;
- (3) Evidence of success in positively influencing student attitudes and promoting education and career opportunities in science, technology, engineering, and mathematics;
- (4) Evidence of successful outreach to students, parents, and the community regarding the importance of mathematics and science education to the Nation's prosperity, job creation, and standard of living, as well as future earning potential for the individual; and
- (5) Evidence of a strong and sustained commitment to the students and schools.

**Sec. 8. Authorization of Appropriations.**

For fiscal years 2005–2007, authorizes such sums as are necessary for carrying out this act from amounts authorized by the National Science Foundation Act of 2002.

